Rocky Flats Best Practices During D&D

Bruce Campbell

Director, Denver Office

Outline

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Purpose

- Provide information on lessons learned from the D&D experience at Rocky Flats
- Provide details on the Rocky Flats comprehensive fire protection program during the D&D mission

Description of the Process

- Developed a comprehensive fire protection program
  - Fire Protection Program Manual, in particular Chapter 5
- The program uses a graded approach for the removal of fire suppression systems and features based on
  - Life Safety
  - Clean-up costs
  - Level of combustibles (direct tie to Life Safety)
  - Impact to the environment, and the public
  - Nuclear Safety requirements
- The process to remove/isolate/abandon equipment is well documented
  - Approved Engineering Calculation (DES 210)
    - Which is approved by the Fire Protection Programs Manager and the Fire Chief

Why did we use this practice

- We had to ensure the DOE objectives were met during our D&D mission
  - Right thing to do
  - Severe contract penalties
- Price-Anderson Amendment Act
- We had to differentiate between routine industrial buildings, former plutonium process buildings, former uranium process buildings and buildings partially underground

What have been the benefits

- The process has been successful
  - We've equally angered both sides (which can be a measure of success)
- In the majority of the cases, we've left systems on for as long as possible
- No serious fires
  - Don't lose sight of the fact that a small fire can have severe impacts

What problems did/do we have

- Impact of loss of heat to buildings that still need sprinklers
- Use of plastics during asbestos abatement in industrial buildings
- Cutting and welding post sprinkler isolation
- Ceiling tile removals
- Influx of trailers
- Storage of waste/waste management cells
- Fire Department accessibility

How we measure our success

- I’m still at Rocky Flats
- Monthly Safety Management Program (SMP) report prepared by the Fire Protection Program Manager
  - A really great tool
- Overall satisfaction of the Project VP’s, the Safety VP as well as the Site President

Description of the process

- Process defined in the Fire Protection Program Manual (FPPM)
- Use of the Site Engineering Process Procedure is an absolute requirement in particular the use of an approved engineering calculation
- Use of impairment procedure (HSP 34.01)
  - Abandoned in Place Energized
  - Abandoned in Place Non-Energized

Description of the process

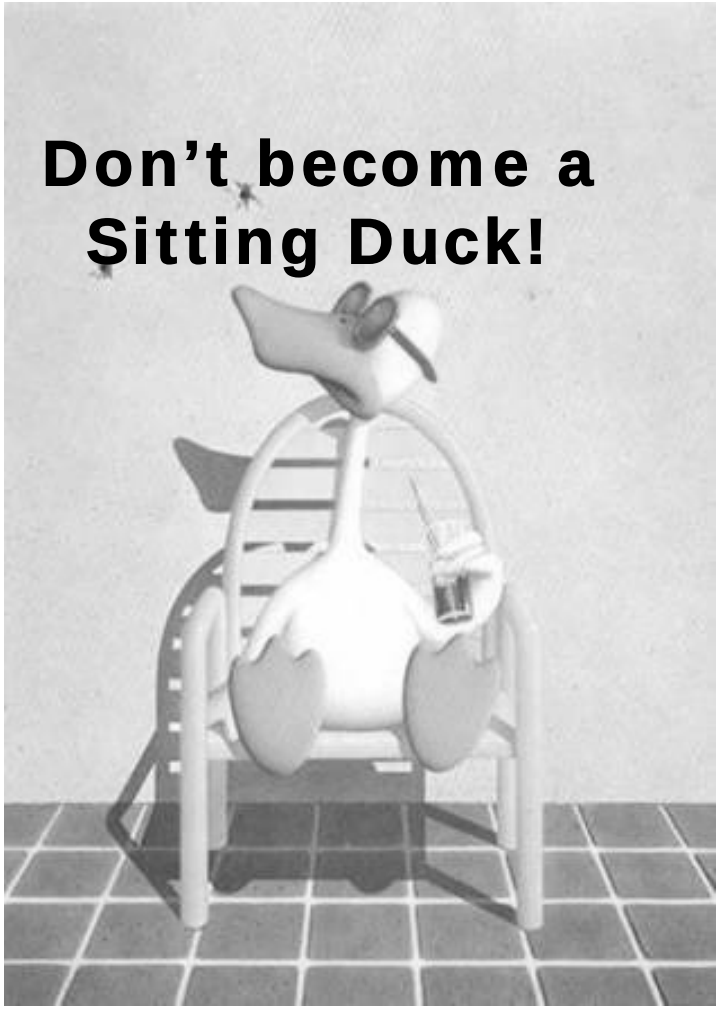
- Conversion of wet systems to dry systems
  - Are not necessarily in full compliance to NFPA 13
- Remove select portions of the systems to eliminate interference
  - Freeze plugs are a good tool
- Use of wheeled extinguishers
  - For cutting and welding in formally sprinklered areas

Examples

- Building 779
  - First plutonium facility
- Building 111
  - First office building
- Building 881
  - Life Safety potentials
- Building 750
  - Office building with asbestos abatement issues

Conclusions

- We have a process that has been very successful
- Document, document, document!
- Hold your ground
- Be reasonable
- Think broadly
- Think out-of-the box



Courtesy of Michael Bedard

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- Engineering Standard - Fire Protection, SF-100, Rev. P, July 14, 2003
- Site Engineering Process Standard, 1-V51-COEM-DES-210, Rev. 7, July 31, 2001